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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,598

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Sylvain Dumet

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24498

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08/18/2009

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EXAMINER

LEE, ANDREW CHUNG CHEUNG

ART UNIT

PAPER NUMBER

2419

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/528,598	<b>Applicant(s)</b> DUMET ET AL.	
	<b>Examiner</b> Andrew C. Lee	<b>Art Unit</b> 2419	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 July 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Claims 1 – 10 are pending.

### ***Claim Objections***

2. Claims 4, 9 are objected to because of the following informalities:

Regarding claims 4, 9, the acronym "IGMP" should be spelled out in full text at least once in the claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 – 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Mahajan et al. (US 6785274 B2).

**Regarding claim 1**, Mahajan et al. disclose method for routing data packets in a routing device connecting a first network and a second network, said routing device comprising a switch (*"exchanging discrete data frames or packets between the communication nodes"*, and *"switch 300" and "local area network (LANs) 210 and 220"*

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as routing device connecting a first network and a second network; Fig. 2, col. 8, lines 41 – 57), said method comprising the steps of, at said switch: (a) receiving a frame from a device connected to the first network (*“Ethernet frame”*; col. 8, lines 61 – 66); (b) forwarding the frame to an internal bridge function of the routing device (Fig. 4, element 408, Bridge Forwarding Engine, col. 3, lines 30 – 34); wherein the bridge function is preformed by a means for forwarding a frame based on a destination address of the frame (*“forwards the packet through the switch using conventional bridge forwarding techniques based upon the MAC destination address contained in the MAC header of the message packet”*; col. 3, lines 30 – 34, col. 5, lines 16 – 21, lines 50 – 67); (c) checking whether the frame contains a multicast group management message (*“determine from the IP protocol information 540 whether the message packet 500 is an IGMP message”*; col. 5, lines 5 – 15, col. 9, lines 65 – 67) and in the affirmative, creating a new frame comprising as destination address the destination address of an internal multicast group management module of the routing device, and as payload at least the multicast management data of the received frame (col. 5, lines 16 – 21, lines 50 – 67, col. 6, lines 16 – 26, col. 9, lines 35 – 44, col. 10, lines 1 – 21); and (d) forwarding this new frame to the internal bridge function (col. 10, lines 41 – 52).

**Regarding claim 2**, Mahajan et al. disclose method according to claimed wherein the first network is an Ethernet network and wherein the steps (a) to (d) are carried out by an Ethernet switch module (*“Ethernet message packet transmitted or received by the switch”*; col. 8, lines 58 – 67).

**Regarding claim 3,** Mahajan et al. disclose method according to claimed further comprising the step of inserting into the new frame an identifier of a port on which the initial frame was received (*“associated with forwarding index values which identify the port or ports”; col. 9, lines 35 – 53*).

**Regarding claims 4, 9,** Mahajan et al. disclose method and routing device according to claimed wherein the multicast group management message is an IGMP message (*“a specific protocol type of multicast messages (e. g., IGMP)”*; col. 5, lines 1 – 15).

**Regarding claim 5,** Mahajan et al. disclose method according to claimed further comprising the step, by the multicast group management module upon reception of the new frame, of updating its multicast group information (*“update the switch’s forwarding table”; col. 6, lines 49 – 62*).

**Regarding claims 6, 10,** Mahajan et al. disclose routing device for connecting a first and a second network ( *“switch 300” and “local area network (LANs) 210 and 220” as routing device connecting a first network and a second network; Fig. 2, col. 8, lines 41 – 57*)), said device comprising: (a) a switch for receiving frames from the first network (*“(“Ethernet frame”; col. 8, lines 61 – 66)*; (b) an internal bridge function for delivering frames to appropriate modules as a function of respective frame destination addresses, said bridge function being connected to the switch (*(Fig. 4, element 408, Bridge Forwarding Engine, col. 3, lines 30 – 34; “forwards the packet through the switch using conventional bridge forwarding techniques based upon the MAC destination address contained in the MAC header of the message packet”; col. 5, lines 16 – 21,*

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*lines 50 – 67; col. 9, lines 35 – 53*); (c) a multicast group management module for maintaining up to date multicast group information based on frames received on the first network, said multicast group management module being connected to the bridge function for receiving selected frames there from (*“network management processor”, “update the switch’s forwarding table”; Fig. 3, col. 6, lines 1 – 12, lines 49 – 62*); wherein the switch is a means for determining whether a received frame comprises a multicast group management message (*“determine from the IP protocol information 540 whether the message packet 500 is an IGMP message”; col. 9, lines 65 – 67*), and in the affirmative, providing a new frame comprising multicast group management information extracted from the original received frame, wherein the new frame has a destination address equal to the address of an internal multicast group management module ((*col. 5, lines 16 – 21, lines 50 – 67, col. 6, lines 16 – 26, col. 9, lines 35 – 44, col. 10, lines 1 – 21, col. 11, lines 43 – 67*), and for forwarding the new frame to the bridge function (*col. 10, lines 41 – 52*).

**Regarding claim 7**, Mahajan et al. disclose routing device according to claimed wherein the switch is an Ethernet switch (*“packets sent or received from the switch are Ethernet frames”, “Ethernet message packet transmitted or received by the switch”; col. 8, lines 58 – 67*).

**Regarding claim 8**, Mahajan et al. disclose routing device according to claimed wherein the switch comprises a plurality of ports for receiving frames (*“the switch is 3-port bridge comprising Port A, port B, and Port R”; col. 8, lines 45 – 57*), and wherein the switch further comprises means for including into the new frame a port identifier of

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the port on which the initial frame containing the multicast group management message arrived (*"associated with forwarding index values which identify the port or ports"; col. 9, lines 39 – 55*).

### ***Response to Arguments***

5. Applicant's arguments filed on 7/07/2009 with respect to claims 1 - 10 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a) Ooghe et al. (US 20030123453 A1).
- b) Kobayashi (US 6457059 B1).
- c) Merchant (US 6778547 B1).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571)272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C Lee/

Examiner, Art Unit 2419

<8/12/2009::4Qy09>

/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2419